

REMARKS

The examiner has objected to the drawings. Specifically, the examiner has objected to drawings because they do not include reference sign 28. Reference number 28 has now been deleted from the specification. The examiner also claims that reference number 16 and 17 both designate the anode or anode current collector. It is pointed out that Fig. 3 shows the anode 16 as being the sixth layer from the bottom while the anode current collector 17 is shown as the seventh layer from the bottom. The examiner's confusion may stem from the lead line of reference 17 ending close to the cross-hatching and therefore appearing to extend through the current collector. Applicant has now corrected the drawing to alleviate this potential problem. The examiner has also claimed that reference numbers 12 and 19 both designate either the packaging layer or the passivation layer. The drawings have now been corrected by extending lead line 19 to the appropriate layer.

The examiner has objected to the Abstract. The Abstract has now been amended to include reference to the method.

The examiner has objected to the specifications because of the reference to "cathode anode". Applicant has now corrected this problem. In reviewing this error the Applicant has discovered other errors between the specification and the drawings which Applicant has now corrected through this amendment.

The examiner has rejected claims 1-5, 7-11 and 13-15 under 35 U.S.C. §102 as being anticipated by Verma et al. The examiner has also rejected claims 6, 12, and 16 under 35 U.S.C. §102 or §103 as being anticipated or made obvious by either Verma et al. or Shiota.

Applicant discloses a method of sealing a battery cell having a top surface, a bottom surface and peripheral edges. The method comprises the steps of (a) positioning a first layer of packaging foil over the top surface of the battery cell, (b) positioning a second layer of packaging foil over the bottom surface of the battery cell, and (c) heat sealing the first layer of packaging foil to the top surface of the battery cell, heat sealing the second layer of packaging foil to the bottom surface of the battery cell, and heat sealing the first layer of packaging foil to the second layer of packaging foil about the periphery of the battery cell.

Verma et al. discloses a method of packaging a battery cell wherein layers of dielectric material are "deposited" upon the battery cell, then covered with a liquid epoxy which is then cured with UV light. Firstly, Applicant specifically claims that its method includes positioning "first layers of packaging foil" and "second layers of packaging foil". In Verma et al. the sputtering, chemically vapor deposition, or glow discharge deposition of the sealant produces a liquid which is clearly not a foil.

Secondly, Applicant specifically states that the foils are "heat sealed" to the battery cell. Heat sealing is a specific process wherein heat is applied to a material under pressure in order to momentarily cause at least a portion of it to become semi-molten and thereby adhere to the underlying surface. The fact that Verma et al. happens to utilize heat during an annealing process in no way amounts to the specific process of "heat sealing". In fact, if one were to attempt to heat seal the liquid epoxy applied to the battery cell in Verma et al. one would most likely destroy the layer, damage or contaminate the heat sealing device, and make the epoxy more viscous rather than cure it. Therefore, the Applicant's process is diametrically opposed to the process shown in Verma et al.

Thirdly, Applicant specifically recites in its claims that the first foil is heat sealed to the second foil about the periphery of the battery cell. Obviously, Verma et al. does not have a second foil that is positioned on the bottom of the cell. Furthermore, as it does not have a second layer it can not possibly be heat sealed about the periphery of the cell.

Applicant respectfully submits that the Verma et al. patent clearly shows an alternative method of packaging a battery cell through the use of a liquid epoxy coating which is later cured. As such, this patent actually teaches away from Applicant method of laminating the battery cell with a heat sealable foil or sheet.

Moreover, as Verma et al. does not disclose the use of foils, heat sealing or sealing the foils about the periphery of the battery cell this reference not only does not anticipate the Applicant's invention, it also does not make such obvious.

With regard to claims 6, 12 and 16 directed to the product. Applicant points out that the claims from which these claims depend upon all claim that the packaging foils are heat sealed to the top and bottom of the battery cell. As previously argued, Verma et al. does not disclose a heat sealing process. Additionally, Shiota et al. also does not disclose the concept of heat sealing foils directly to the battery. It should be noted that it has been commonly understood that the heat sealing process would destroy a typical battery cell. In Shiota et al. the "bag" "encapsulates" the battery cell by sealing the bag about the periphery of the battery cell. However, careful attention is paid not to transfer heat to the active portions of the battery cell, i.e., the bag is not heat sealed to the top and bottom of the battery cell as claimed by the Applicant. As such, the end product shown in Shiota et al. is structurally different from the end product made according to Applicant's method. The examiner is respectfully reminded that the method described in Shiota et al. and the actual Shiota et al. patent number was specifically identified and described by Applicant in its BACKGROUND OF THE INVENTION and therein distinguished from this method, see page 2, lines 7-22.

Applicant hereby submits that as these method produce different products Applicant contends its product by process claims should also be allowed.

By this response it is believed that the application has now been placed in condition for allowance. An early notice to such effect is accordingly solicited.

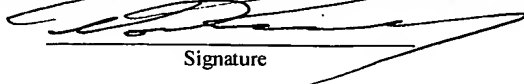
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